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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,202	01/04/2002	Roger Spink	016790-0444	3477

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EXAMINER

FINEMAN, LEE A

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/035,202	SPINK ET AL.	
	Examiner	Art Unit	
	Lee Fineman	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 6-10, 13 and 15-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11, 12, 14 and 18-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is in response to an amendment filed 4 December 2003 in which claims 1 and 11 were amended and claims 18-37 were added. Claims 1-37 are pending, of which claims 6-10, 13, 15-17 are withdrawn.

#### ***Drawings***

1. Replacement drawings were received on 4 December 2003. Replacement sheets containing amended figures 6, 15 and 28 are acceptable. Replacement sheet containing amended figure 2 is unacceptable (see objection below).

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "2L" in fig. 2. Note: Applicants states on page 11 of the amendment filed 4 December 2003 that applicant amended Fig. 2 by replacing "2L" with "19." However the replacement sheet still has reference sign "2L."

#### ***Specification***

3. The disclosure is objected to because of the following informalities:  
Page 31 states "FIG. 22, FIG. 23, FIG. 27 and FIG. 25 show a CCD camera as image recording device 9. However, the image recording device 9 can also be designed as any other type of video camera." However, fig. 27 does not have image-recording device 9 and should be changed to --FIG. 26--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-5, 11-12, 14 and 18-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claims 1, 11, 18, 23 and 26 all state, “a beam splitter (or a first beam splitter) disposed in the first and second beam paths, wherein the two beam paths are geometrically superimposable with respective third and fourth beam paths.” However, no figures with four beam paths (figs. 15, 18, 24, 27 or 28) show **a beam splitter** wherein the two beam paths are geometrically superimposable with respective third and fourth beam paths. These figures all show two beam splitters, one beam splitter superimposing a first beam path with a third beam path and a second beam splitter superimposing a second beam path with a fourth beam path. Further, dependent claims 4-5, 21-22 and 31-32 all state the limitation “an image recording device,” which again is not included in any figures with four beam paths (figs. 15, 18, 24, 27 or 28). The dependent claims inherit the deficiencies of the claims from which they depend.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-2, 11, 18-19, 23, 26-29 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al., Japanese Patent Application No. JP03223807A (henceforth JP-807) in view of Kato et al., U.S. Patent No. 4,827,909 (henceforth US-909).

JP-807 disclose in fig. 1, a stereomicroscope comprising a first beam path (one path from display 2 to eyepiece 6a) and a second beam path (other path from display 2 to eyepiece 6b); a beam splitter (1) disposed in the first and second beam paths (fig. 1) wherein the two beam paths are geometrically superimposable with respective third beam path (one path from object 7 to eyepiece 6a) and fourth beam path (other path from object 7 to eyepiece 6b); a display (2) to provide image information to the first and second beam paths (fig. 1); wherein at least a portion of the third and fourth beam paths are located in a stereomicroscope (fig. 1); wherein the third and fourth beam paths pass through a first (6a) and second (6b) eyepiece, respectively (fig. 1); and wherein the image generated by a display device is conveyed along the third and fourth beam paths after being conveyed along the first and second beam paths, respectively (fig. 1). JP-807 disclose the claimed invention except for a single, non-reflecting, rotating shutter, wherein said shutter comprise at least one aperture diaphragm for alternately making a given first and second beam path passable by light or blocking said given first and second beam path in a light-tight manner; wherein the shutter has a plurality of opaque and transmissive regions, wherein a rotation speed is reduceable; and wherein the image generated by the display and conveyed along the first and second beam path passes the single, non-reflective rotating shutter before being superimposed on another beam path. US-909 teach in figs. 5 and 6 a single, non-reflecting,

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rotating shutter (39), wherein said shutter comprise at least one aperture diaphragm (39a) for alternately making a given first and second beam path passable by light or blocking said given first and second beam path in a light-tight manner (column 5, lines 38-45) and wherein the shutter has a plurality of opaque and transmissive regions (fig. 6), wherein a rotation speed is reduceable (via motor control 40, 41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the rotatable shutter of US-909 in front of the display of JP-807 to provide controlled, stereoscopic illumination of the image (column 5, lines 46-53, US-909). Therefore, regarding claims 26-29 and 33-35, the image generated by the display and conveyed along the first and second beam path passes the single, non-reflective rotating shutter before being superimposed on another beam path.

8. Claims 3-5, 12, 20-22, 24, 30-32 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-807 in view of US-909, as applied to claims 1, 11, 18, 23, 26 and 33 above, and further in view of Beste, U.S. Patent No. 3,251,933.

Regarding claims 4-5, 12, 21-22, 24, 31-32 and 36 JP-807 in view of US-909, as applied to claims 1, 11, 18, 23, 26 and 33 above, further disclose a shutter motor to drive said rotating shutter (40, US-909). JP-807 in view of US-909, as applied to claims 1, 11, 18, 23, 26 and 33 above disclose the claimed invention except for an image recording device disposed in the third beam path and wherein the shutter motor is driven in synchronization with a reading of the image recording device; and a second beam splitter disposed in the first beam path and a third beam splitter disposed in the second beam path. Beste teaches a stereoscopic system with an image recording device (11) disposed in the third beam path (44); and wherein the shutter motor is

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driven in synchronization with a reading of the image-recording device (column 2, lines 58-62).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to put the image-recording device of Beste in the third beam path of JP-807 in view of US-909 to be able to record images of the object and display. Regarding claims 12, 24 and 36, Beste is an example that beam splitters (42) are well known in the art for redirecting portions of light into different beam paths. It would have been obvious to one of ordinary skill in the art at the time the invention was made to insert a beam splitter into any of the beam paths to provide a different light direction in order for another viewer to see the display or another detector/camera to record the images.

Regarding claims 3, 20 and 30, JP-807 in view of US-909 further discloses wherein the first and second beam paths are superimposable at a location proximate to a position of the beam splitter (fig. 1, JP-909). JP-807 in view of US-909 disclose the claimed invention except for a first deflecting mirror disposed in the first beam path; and a second deflecting mirror in the second beam path. Beste is an example that deflecting mirrors are very well known in the art for changing the direction of a beam path (26, 28, fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a first deflecting mirror in the first beam path and a second deflecting mirror in the second beam path to be able to provide a more compact device by folding the beam path and thereby having the display closer to the microscope body.

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9. Claims 14, 25 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-807 in view of US-909 and Beste, as applied to claims 12, 24 and 36 above, and further in view of Minns et al., U.S. Patent No. 3,353,892.

JP-807 in view of US-909 and Beste, as applied to claims 12, 24 and 36 above disclose the claimed invention except for a first prism disposed in the first beam path; and a second prism in the second beam path wherein the prisms guide the image information into respective eyepieces. Prisms are well known in the art for guiding optical image information. For example, Minns et al. teach a stereoscopic microscope (fig. 1 and 2) with a prism (7, 8) for guiding optical image information to the eyepieces (10). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use well-known prisms in the system of JP-807 in view of US-909 and Beste to provide a specific beam path which guides optical image information to the eyepieces.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's arguments filed 4 December 2004 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to add a beam splitter into the system, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some



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teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation of placing a beam splitter into the beam path to provide a different beam path is in the knowledge generally available to one of ordinary skill in the art. Further, Beste provides an example of a beam splitter (42) for redirecting portions of light into different beam paths.

Applicant further argues that impermissible hindsight was used in the rationale to use prisms to guide optical image information to the eyepieces. In response, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In fig. 1, Minns clearly teaches use of prisms (7, 8) to guide the image to the eyepieces (10). Therefore, the knowledge was within the level of ordinary skill at the time the claimed invention was made and not taken from the applicant's disclosure and is a proper conclusion of obviousness.

### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-23124. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAF  
March 16, 2004

  
**MARK A. ROBINSON**  
**PRIMARY EXAMINER**